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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,493	06/15/2006	Jinxing He	STD-0903-USPT	7305
66774	7590	10/02/2009	EXAMINER	
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			ART UNIT	PAPER NUMBER
			3742	
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			10/02/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

cho@barron-young.com
csho@barron-young.com

Office Action Summary	Application No. 10/596,493	Applicant(s) HE ET AL.	
	Examiner KET D. DANG	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, & 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to the amendment filed on June 3, 2009. As directed by the amendment: claims 1 and 4-5 have been amended, claims 2 and 7 have been cancelled and claim 8 has been added. Thus, claims 1, 3-6, and 8 are presently pending in this application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

2. Examiner notices that the Applicant No. and the Docket No. on top of the Remarks and the Amendments to the Claims are not correct. The applicant No. should be 10596493 and the Docket No. is STD-0903-USPT. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-5 (as amended), and 8 (newly added) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there are insufficient antecedent basis for “the movement direction” recited at line 16, “the position” recited at line 17, “the axial direction”, “the positive and negative electrode-pins” recited at line 25 in the claim.

In claim 4, the term “IGBT” recited at line 2 must be spelled out.

In claim 6, there is insufficient antecedent basis for "the angle α " recited at line 1 in the claim or from the preceding claim 1. The phrase "may be" recited at line 2 should be changed to "is" for positive recitation.

In claim 8, there is insufficient antecedent basis for "the default interval" recited at line 1 in the claim or from the preceding claim 1. Such default interval must be clearly defined.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 5, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. (US Pat No. 5,012,825) in view of Hollinetz (US Pat No. 4,501,953) and further in view of Schmidt-Kufek et al. (US 4,278,871).

6. Regarding claims 1, 3, 5, 6, and 8, Lindemann et al. disclose the punch device (Abstract) comprising: a mechanism for winding and unwinding (See Figure 1, spool); a correcting control unit 31 (Fig. 5); a tension control unit 17 (Fig. 5); a hydraulic mechanism (Col. 8, lines 28-30); a punch mechanism (Abstract); a high frequency and high voltage generator (Col. 8, lines 52-55); a detecting unit (See figure 5 testing device; Col. 7, lines 61-66); a controlling means for speed (Col. 8, lines 57-60); a pulse frequency and pulse width control (Col. 8, lines 57-60); and a user interface (Only requires the ability to interact with the perforating apparatus such as adding and

Art Unit: 3742

removing the carts of figure 1); an electrode elevating mechanism (Col. 8, lines 48-52); wherein the punching mechanism comprises at least two or more electrode matrixes 52a,b (Fig. 5; Col. 1, lines 18-22); each electrode matrix is made up of N sets of electrode bars longitudinally arrayed which form an angle with the movement direction of the substrate (Col. 7, lines 35-46), wherein each pair of the electrode bars comprises a upper bar and a lower bar, and each pair of the electrode bars an anode bar and a cathode bar on either side of the substrate (Col. 1, lines 31-33), and each bar is provided with M electrode-pins 52a (Fig. 7a; Col. 11, lines 18-21); the electrode-pins provided on the respective upper bar and the respective lower bar are aligned with each other, $(1 \leq N \leq 100)$ (Col. 1, lines 18-22) and $(1 \leq M \leq 50)$ 52a (Fig. 7a); wherein the movement direction of the substrate crossing the electrode matrixes is vertically downward or upward (Col. 8, lines 48-52) and the axial direction of the positive and negative electrode-pins is horizontal 52a (Fig. 7a; Col. 11, lines 14-21); wherein the electrode elevating mechanism comprises a control computer 76 (fig. 5) and a hydraulic control system (Col. 8, lines 8-37), the control computer simultaneously controls alignment of each pair of the electrode-pins and keeps a default interval between the electrode-pins of each pair of the electrode-pins by utilizing the hydraulic control system (Col. 8, lines 8-37); wherein the controlling means for speed (Col. 8, lines 57-60), pulse frequency and pulse width control includes a single interface for the detecting unit, a computing central processor (Col. 9, lines 20-36), an output interface for signals of speed, an electrical pulse frequency and impulse width, module embedded in the

Art Unit: 3742

computing central processor 76 (fig. 5) for controlling the speed, the electrical pulse frequency and the impulse width (Col. 9, lines 21-36).

7. Lindemann et al. fails to show the angle is changeable by adjusting the position of either end of the electrode bars; and wherein the default interval between the electrode- pins of each pair of electrode-pins is 0.5-5mm.

8. However, Hollinetz teaches the angle is changeable by adjusting the position of either end of the electrode bars (Col. 2, lines 48-57). Schmidt-Kufek et al. disclose wherein the default interval between the electrode- pins of each pair of electrode-pins is 0.5-5mm (see figures 4 & 6; col. 1, lines 42 - col. 2, lines 19).

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Lindemann's reference, to have angle changed by adjusting the position of either end of electrode bars as suggested and taught by Hollinetz in order to provide measures which result in a highly uniform permeability to air (Col. 1, lines 46-52).

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. (US Pat No. 5,012,825) in view of Schnetzka et al. (US Pat No. 5,898,554)

11. Regarding claim 4, Lindemann et al. disclose the claimed invention as set forth above, except for wherein the high frequency and high voltage generator generates high power and high frequency voltage with an IGBT tube and a high frequency and high power booster.

Art Unit: 3742

12. However, Schnetzka et al. teach wherein the high frequency and high voltage generator generates high power and high frequency voltage with an IGBT tube and a high frequency and high power booster (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Lindemann's reference, to include an IGBT tube, as suggested and taught by Schnetzka, for the purpose of controlling high current and high voltage with conventional circuit components (Col. 1, lines 40-47).

Response to Amendments/Arguments

13. Applicant's amendments/arguments with respect to claims 1, 4, and 6 have been considered but are moot in view of the new ground(s) of rejection.

14. Examiner also notices that the second reference of claims 4 and 6 are not correct in the Remarks (bottom of page 6 and page 7). For example, in claim 4, page 6, the primary reference is Lindemann and the secondary reference is Schnetzka, not Hollinetz.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 3742

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571) 270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/

Examiner, Art Unit 3742

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742